

1. A method for obtaining information from a marking material container comprising:

providing a marking material container having a phosphorescent material with predetermined phosphor properties for emitting light with characteristics corresponding to the information;

shining light at a container position for a period of time; and

sensing for emitted light coming from the phosphorescent material.

2. The method defined in claim 1 further comprising:

determining the characteristics of the emitted light; and

generating the information.

3. The method defined in claim 2 wherein the information identifies the marking material container.

4. The method defined in claim 2 wherein the information identifies the marking material in the marking material container.

5. The method defined in claim 2 wherein the information identifies the manufacturer of at least one of the marking material and the marking material container.

6. The method defined in claim 2 wherein the information is date information.

7. The method defined in claim 2 wherein the marking material is dry ink.

8. The method defined in claim 2 wherein the marking material is liquid ink.

9. The method defined in claim 2 wherein the marking material is solid ink.

10. The method defined in claim 2 wherein the marking material is toner.
11. The method defined in claim 1 wherein the phosphor properties includes emission properties.
12. The method defined in claim 11 wherein the emission properties include an emissions decay rate.
13. The method defined in claim 11 wherein the emission properties include an emission wavelength.
14. The method defined in claim 11 wherein the emission properties include efficiency of emission.
15. The method defined in claim 1 wherein the phosphor properties includes absorption properties.
16. The method defined in claim 15 wherein the absorption properties include an absorption wavelength.
17. The method defined in claim 15 further comprising:  
providing a light source for producing light having properties which are matched to the absorption properties of the phosphorescent material.
18. The method defined in claim 11 further comprising:  
providing a photo detector having detection properties which are matched to the emission properties of the phosphorescent material.
19. The method defined in claim 1 wherein the marking material container is not disposed in the container position further comprising:  
generating a signal indicating that the marking material container is not disposed in the container position.

20. A marking material container for holding a marking material comprising a phosphorescent material having predetermined phosphor properties for emitting light having characteristics for providing information.

21. The marking material container defined in claim 20 wherein the information identifies the marking material container.

22. The marking material container defined in claim 20 wherein the information identifies the marking material.

23. The marking material container defined in claim 20 wherein the information identifies the manufacturer of at least one of the marking material and the marking material container.

24. The marking material container defined in claim 20 wherein the information is date information.

25. The marking material container defined in claim 20 wherein the marking material is dry ink.

26. The marking material container defined in claim 20 wherein the marking material is liquid ink.

27. The marking material container defined in claim 20 wherein the marking material is solid ink.

28. The marking material container defined in claim 20 wherein the marking material is toner.

29. The marking material container defined in claim 20 wherein the phosphor properties includes emission properties.

30. The marking material container defined in claim 29 wherein the

emission properties include an emissions decay rate.

31. The marking material container defined in claim 29 wherein the emission properties include an emission wavelength.

32. The marking material container defined in claim 29 wherein the emission properties include efficiency of emission.

33. The marking material container defined in claim 20 wherein the phosphor properties includes absorption properties.

34. The marking material container defined in claim 33 wherein the absorption properties include an absorption wavelength.

35. A system for obtaining information from a marking material container comprising:

- a marking material container for holding a marking material and having a phosphorescent material with predetermined phosphor properties for emitting light with characteristics corresponding to the information;

- a light source for producing a light beam directed towards the phosphorescent material;

- a photo detector for detecting light emitted from the phosphorescent material;

and

- a controller for determining characteristics of the light detected by the photo detector and generating the information.

36. The system defined in claim 35 wherein the information identifies the marking material container.

37. The system defined in claim 35 wherein the information identifies the marking material.

38. The system defined in claim 35 wherein the information identifies the

manufacturer of at least one of the marking material and the marking material container.

39. The system defined in claim 35 wherein the information is date information.

40. The system defined in claim 35 wherein the marking material is dry ink.

41. The system defined in claim 35 wherein the marking material is liquid ink.

42. The system defined in claim 35 wherein the marking material is solid ink.

43. The system defined in claim 35 wherein the marking material is toner.

44. The system defined in claim 35 wherein the phosphor properties includes emission properties.

45. The system defined in claim 44 wherein the emission properties include an emissions decay rate.

46. The system defined in claim 44 wherein the emission properties include an emission wavelength.

47. The system defined in claim 44 wherein the emission properties include efficiency of emission.

<sup>48</sup>  
~~50.~~ The system defined in claim 35 wherein the phosphor properties includes absorption properties.

<sup>49</sup>  
~~51.~~ The system defined in claim <sup>48</sup>~~50~~ wherein the absorption properties include an absorption wavelength.

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~~52.~~

A printer/copier comprising:

a marking material container for holding a marking material and having a phosphorescent material with predetermined phosphor properties;

a light source for producing light directed towards the phosphorescent material;

a photo detector for detecting light emitted from the phosphorescent material;  
and

a controller for determining characteristics of the light detected by the photo detector and generating information.

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~~53.~~

The printer/copier defined in claim <sup>50</sup>~~52~~ wherein the information identifies the marking material container.

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~~54.~~

The printer/copier defined in claim <sup>50</sup>~~52~~ wherein the information identifies the marking material.

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~~55.~~

The printer/copier defined in claim <sup>50</sup>~~52~~ wherein the information identifies the manufacturer of at least one of the marking material and the marking material container.

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~~56.~~

The printer/copier defined in claim <sup>50</sup>~~52~~ wherein the information is date information.

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~~57.~~

The printer/copier defined in claim <sup>50</sup>~~52~~ wherein the marking material is dry ink.

56  
~~58.~~

The printer/copier defined in claim <sup>50</sup>~~52~~ wherein the marking material is liquid ink.

57  
~~59.~~

The printer/copier defined in claim <sup>50</sup>~~52~~ wherein the marking material is solid ink.

<sup>58</sup>  
~~60.~~ The printer/copier defined in claim <sup>50</sup>~~52~~ wherein the marking material is toner.

<sup>59</sup>  
~~61.~~ The printer/copier defined in claim <sup>50</sup>~~52~~ wherein the phosphor properties includes emission properties.

<sup>60</sup>  
~~62.~~ The system defined in claim <sup>59</sup>~~61~~ wherein the emission properties include an emissions decay rate.

<sup>61</sup>  
~~63.~~ The system defined in claim <sup>59</sup>~~61~~ wherein the emission properties include an emission wavelength.

<sup>62</sup>  
~~64.~~ The system defined in claim <sup>59</sup>~~61~~ wherein the emission properties include efficiency of emission.

<sup>63</sup>  
~~65.~~ The printer/copier defined in claim <sup>50</sup>~~52~~ wherein the phosphor properties includes absorption properties.

<sup>64</sup>  
~~66.~~ The system defined in claim <sup>63</sup>~~65~~ wherein the absorption properties include an absorption wavelength.